ALPEG

MP615/MP107
MPEG-2 video player

User guide

WWW.ALPEG.COM

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2. Composition

The digital video player is made up of a player section and the following different modules:

- A network connection.
- An RS232 connection.
- A GPI connector.
- A Keypad connector.

This is a list of the equipment supplied :

- A digital keyboard,
- this guide,
- a Y/C cable ,
- a BNC-BNC cable,
- a RCA-RCA stereo cable.
- special MP107 cords (mini din / RCA & mini din / 3 RCA)
- audio cord MP107 3.5mm jack / RCA stereo

3. Usage

3.1 The player

When you turn the player on, the script reader starts up automatically after about 30 seconds. You must verify beforehand that the disk is indeed plugged in and that the key locking is activated.

The order of the script reading and the description of the interaction with external modules are programmed in the script named SC00 and possibly in the sub-script files (SC01, SC02 …).

3.1.1 Script file

The script files are basic programmes describing, with simple commands, the order in which the video clips are played. External actions that may occur, possibly the time between actions and/or the clips, loops it and calls on another sub-script.

They are written in simple text file.
You can edit them directly in the HTML interface (see script construction page) of the mp615 reader, or on your local computer with any text editor. You should name them SC00 without any extensions and upload the script created in the player using an FTP service or a network explorer.

3.1.2 Videos

The video clips must be in MPEG-1 (system) or MPEG-2 (program) format

3.1.3 File transfer

The file transfer is performed either by network link using drop and drag with your operating system or with FTP transfer software.
File transfer is carried out using any FTP software.
See documentation concerning Web interface (network)
File transfer can also be done using the mobile rack via another computer recognising the hard disk sharing format: FAT32.
Please consult us should you wish to acquire female mobile rack.

Introduction to the FTP transfer protocol

FTP = File Transfer protocol.

After electronic mail and the WEB, FTP is another Internet service that evolutions in technology have made much easier to use, but the aspect of which is still not very user-friendly.
This service, with email and discussion groups, were the only tools in existence before the appearance of the Web in 1990, and were at that time used mostly by research centres and universities.

What does it do?

Everything is (almost) said in the title, and boils down to the possibility to transfer files to or from other connected computers.
All over the world, millions of multimedia files (documents, latest versions of navigators, plug-ins, utilities, shareware or freeware programmes, images, sound, videos, drivers, games, fonts.... anything and everything!) are stored in directories on FTP sites, commonly called **FTP servers.**
The ALPEG players are themselves ftp servers.
The programmes used to communicate with these FTP servers are called quite simply **FTP clients.**
Here again we encounter the notion of Client/Server, where the client is the one who benefits from the operation and the server is the one that makes itself available to you.

==========

Between two connected computers (even different ones: Mac, PC, Unix...) that use the same FTP protocol, there will be **transfer** of files on the network.
The size of the file to be transferred is unlimited, however, it often conditions the length of the connection.
- **Download,** means to import a document from a server to your computer.
- **Upload,** means to export (send) a document from your computer to a server.

It goes without saying that the above definitions reflect your position as a user, but the same terms apply during transfer between two servers, which then function as relays.

Who has access to it?

Everyone doesn't have access everywhere, and for example the directory of my site is protected by a code. It is usually this way for the server of a company storing files which are often confidential, and reserved for managers and external heads of agencies, or in universities, where the entry of certain documents is reserved for its students and teaching staff only. You must know the **password** to have access to it.
Other FTP sites are freely accessible without a password, and you can go "shopping" there with complete peace of mind. Sometimes it all happens without formalities, or some ask you to fill in the identifying input field beforehand (your login = your name) that you simply replace with the word ***anonymous*** and then to give your email address as password. This service is known by the name of **"anonymous FTP site"**.

On the contrary, others, before giving you access, ask you to fill out a little form. It's nothing to worry about, and won't present any problems if your intentions are honest.
And if, upon the opening of an FTP page, you encounter the abbreviation **pub,** it has nothing to do with publicity**,** it just signifies free and public access. .
For the ALPEG, the connection is made by directly typing your IP address with your login as: anonymous, and no password.

How to access it?

-Either through your navigator. (All of them do not offer this possibility)
-Or by using specialised software, for example, in the case of particular or heavy FTP use.
As an individual, you are always the client, and you are going to have to use the protocol dedicated to this service: ftp (the way you use http to browse the web, or @ pour email), which, to connect to the ALPEG server, amounts to:
ftp://10.16.99.107 .....connection from a navigator.
ftp.10.16.99.107 .....if using specialised software.
In fact, on the Web you are downloading files practically all the time, but with a fundamental difference with respect to FTP: the documents on the Web are only displayed **temporarily,** for the time that you are viewing them.

3.2 Controls and access methods.

3.2.2 Network connection

The network connection is the way to access the player interface using a traditional Web navigator for HTML pages, and by any FTP software for file transfer.
See the network interface section.

For direct connection between a PC and the player, you MUST use an inverter cable, for any other type of link (e.g. via a hub), you can use a normal non-inverter RJ45-RJ45 cable.

If you are not sure which IP address to configure, contact your network administrator for the IP address to configure the player so that it can be incorporated into your current system.

For a connection to the original IP address of the Player, you can use the following address on your computer: 10.16.99.110 with subnet mask: 255.255.0.0

3.2.3 RS232 Connection

The RS232 connections allow the player to be driven.

- See programming chapter
- See connection appendix

3.2.4 Parallel electronic GPI connector

Enable a video numbered 1 to 5 to be read

- See the wiring diagram in the connection appendix

ATTENTION:

If the player comes with a hardware key that connects to the electronic parallel GPI connector, in utilisation without commands by dry contacts, it is obligatory to set up this hardware key, under pain of improper functioning of the player.

4 How to write script(s)

4.1 Language

*: equals a space

4.1.1 *Play*

Allows a script to be read
Command: *Play file_name_mpeg* (option).
Options:

- ***/f***: no transition to black between two video files.
- ***/l,n***: read the video file 'n' times.

Example: play*/clips/drop.mpg*/f

4.1.2 *Wait*

Allows a time delay to be introduced
Command: *wait*n*
Example: *wait**5: wait 5 seconds

4.1.3 *Goto*

Allows you to go to a line of data.
Command: ***goto** *1*
Example: *goto**5: continue to execute script file at line n° 5

4.1.4 y *(number)*

Allows direct access to the command that is specified after the "y" number, by an external module (RS232 & keyboard & dry contact Connector);
Command: ***y*:** any command
Example: 55:*play /clips/drop.mpg

4.1.5 *SC*

Allows another script from the play list to be started.

Command: ***SCxx***
Example: *SC15* start script n°15

4.1.6 *R*

Allows a specific command to be sent to another channel by the series port.
There are 3 commands possible:

- ***R*x,KEYyy***: read on player n°x, script corresponding to event yy
- ***R*x,MPG/clips/fichier.mpg***: read on player n°x video file.mpg.
- ***R*x,SEQy*** read on player n°x script yy

Examples:

- *R 1,KEY12*
- *R 2,MPG/clips/drop.mpg*
- *R 3,SEQ14*

4.2 some examples

4.2.1 Example 1

play/clips/drop.mpg /1,2
wait 3
play/clips/pubsony.mpg /f
wait 2
goto 1

This script plays the drop.mpg video twice, waits 3 seconds, plays the pubsony.mpg video and fixes the last image, waits 2 seconds and starts again from the beginning (line 1).

4.2.2 Example 2

play/clips/drop.mpg
wait 3
goto 1
5: play /clips/pubsony.mpg
wait 2
goto 1

This script reads and loops the drop.mpg video and waits 3 seconds between each play.
As well as this, we install a reaction to external event n°5.
When we confirm choice n°5, on the keyboard or parallel player, the player reads the pubsony.mpg video followed by a pause of 2 seconds then returns to the beginning (line 1).

4.2.3 Example 3

play/clips/pubsony.mpg
wait 2
SC01
Goto 1
10 : SC02
Goto 1

This script plays the pubsony.mpg video, waits 2 seconds, reads the SC01 script and returns to the beginning.

If event n°10 is called up, the SC02 script will be read and will then return to the beginning of the script.

ATTENTION: in the script file SC02 you must absolutely have a return order to the script SC01 (SC01), otherwise, the reading will always remain on the script file SC02.

4.2.4 example 4

play/clips/pubsony.mpg
wait 2
R2, MPG/clips/drop.mpg
Goto 1

This script reads the pubsony.mpg sequence, waits 2 seconds, orders the player that is identified as being n°2 to play the drop.mpg sequence.
Warning: the drop.mpg sequence must exist on the slave player.

4.3 Recommendations

The script language allows some remarks to be added. To do this, you must start the line with a "#".

Important to remember:

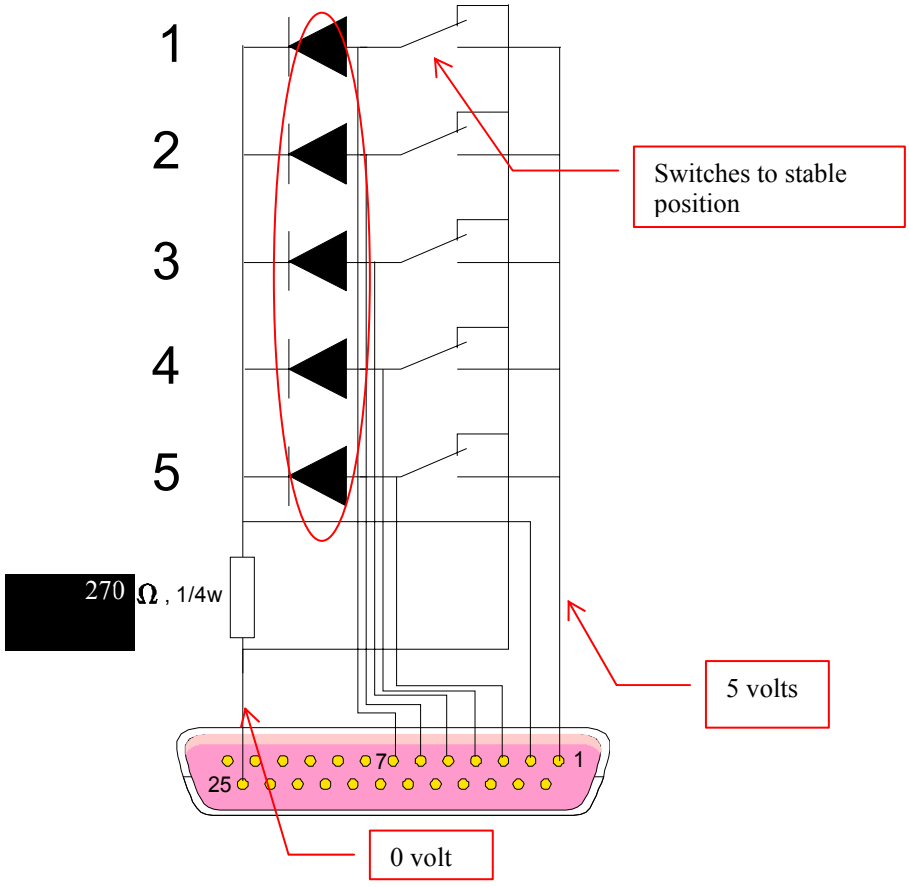
- Avoid Wait 0
- Don't use *Goto* for a line that does not exist.
- Don't do SCxx if the SCxx does not exist.
- If a sequence does not exist, or if a file format is not recognised, the sequence will be ignored but the player also may block.
- If a line in the script contains an unknown command, it will be ignored.

5 Appendices

5.1 diagram of DB25 GPI parallel connector wiring (dry contact)

Diode=OA 90

Diode :OA 90 (direct low-voltage 0.3Volts)



5 channels can be accessed.

ATTENTION: If fewer channels are used, the contacts must imperatively be earthed (grounded).

The closing of contact 1 activates an action associated to a command number 1 (example in the file SC00: **1: play /clips/video1.mpg**).

The closing of contact 2 activates an action associated to a command number 2 (example in the file SC00: **2: play /clips/video2.mpg**).

The closing of contact 3 activates an action associated to a command number 4 (example in the file SC00: **4: play /clips/video3.mpg**).

The closing of contact 4 activates an action associated to a command number 8 (example in the file SC00: **8: play /clips/video4.mpg**).

The closing of contact 5 activates an action associated to a command number 16 (example in the file SC00: **16: play /clips/video5.mpg**).

5.2 Language capacity

5.2.1 sub-scripts.

The player allows up to 10 linked sub-scripts to be called up.
Example:

In the file SC00:
Play /clips/file.mpg
SC01

5.2.2 Video player

Because of the FAT32 system, the maximum size for one single video file is 4 Go.

5.2.3 Commands

The video output and format commands are:

Colour video system:
F0 = NTSC
F1= PAL
F2= PAL 60 Hz

Outputs:
F4= Comp -Y/C
F5= YUV
F6= RGsB
F7= SVGA (Format: 720x575 - 37.5Khz 70Hz)

Therefore, to be operated externally, a command like the one shown below should exist in the script:

10: F1 (the command in RS232 will be called up by using the following formula: ID0CDE:KEY10)

Attention:

If your files were encoded in PAL format in 50Hz (25 images/s), you must imperatively set the player to "F1" on the first line of the reading script.

If your files were encoded in NTSC format in 60Hz (30 images/s), you must imperatively set the player to "F0" on the first line of the reading script.

6. HTML dialogue pages:

6.1 Main page: Open your Internet explorer and type in the following address of the player: http://10.16.99.107 the screen shown below will appear.

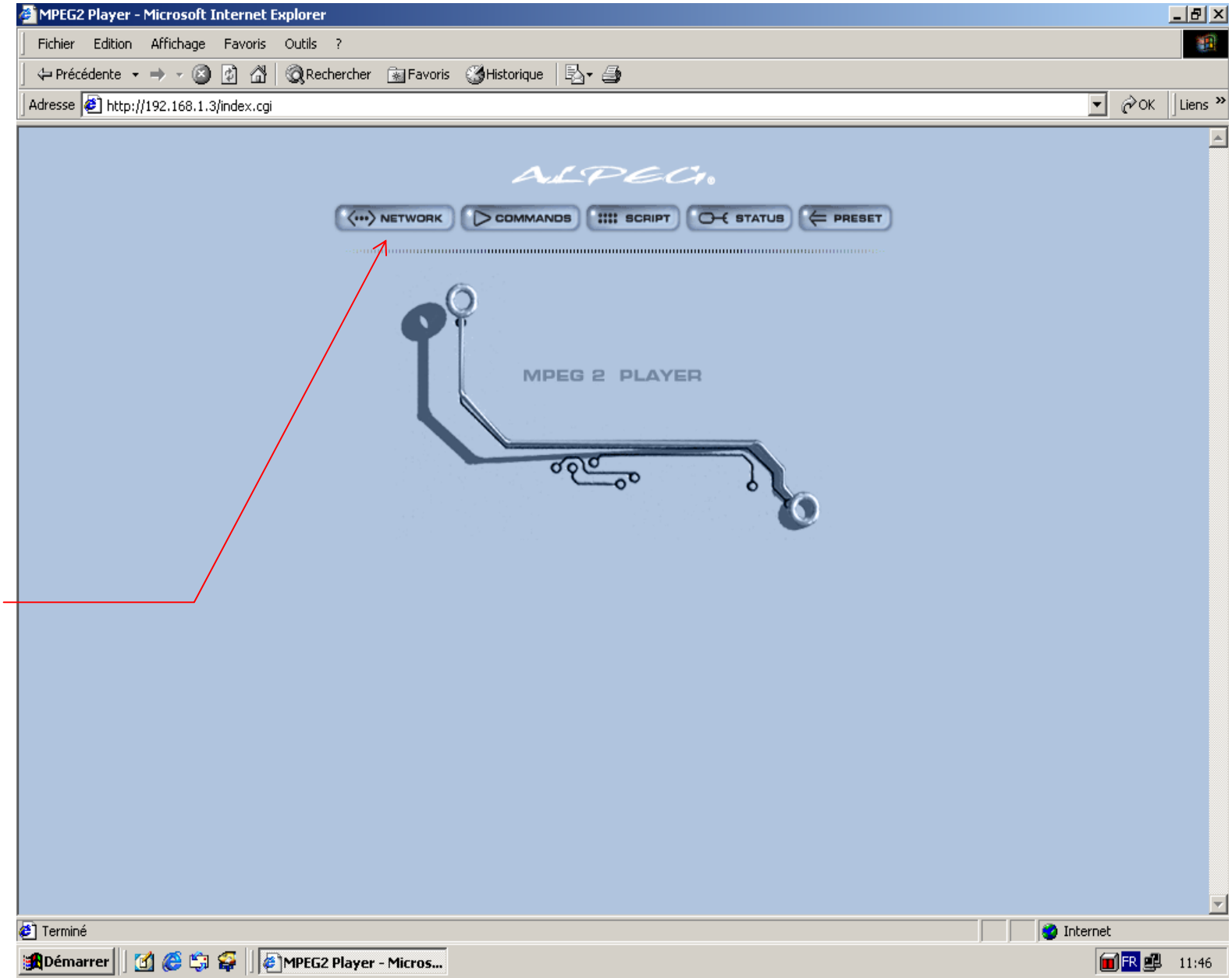


Diagram 2: Main page

6.2 Network interface page:

6.2.1 TCP/IP:

To communicate with the player **for the first time**, the following initial steps must be taken:

Network configuration of local computer is recommended:

IP Configuration & sub network mask to enter in order to access player for the first time

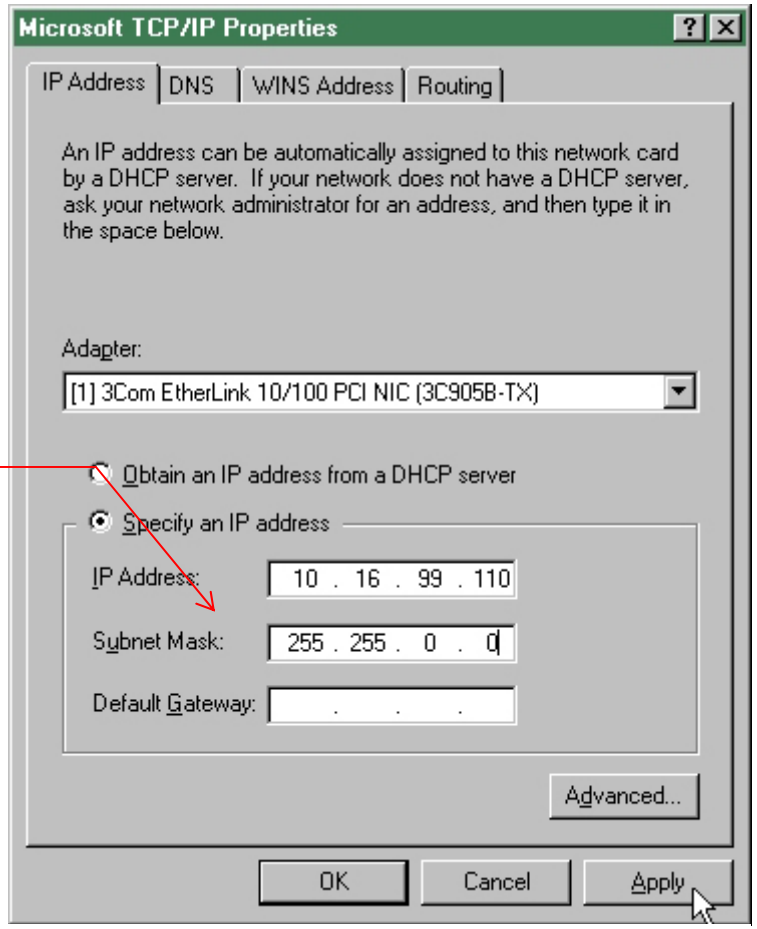
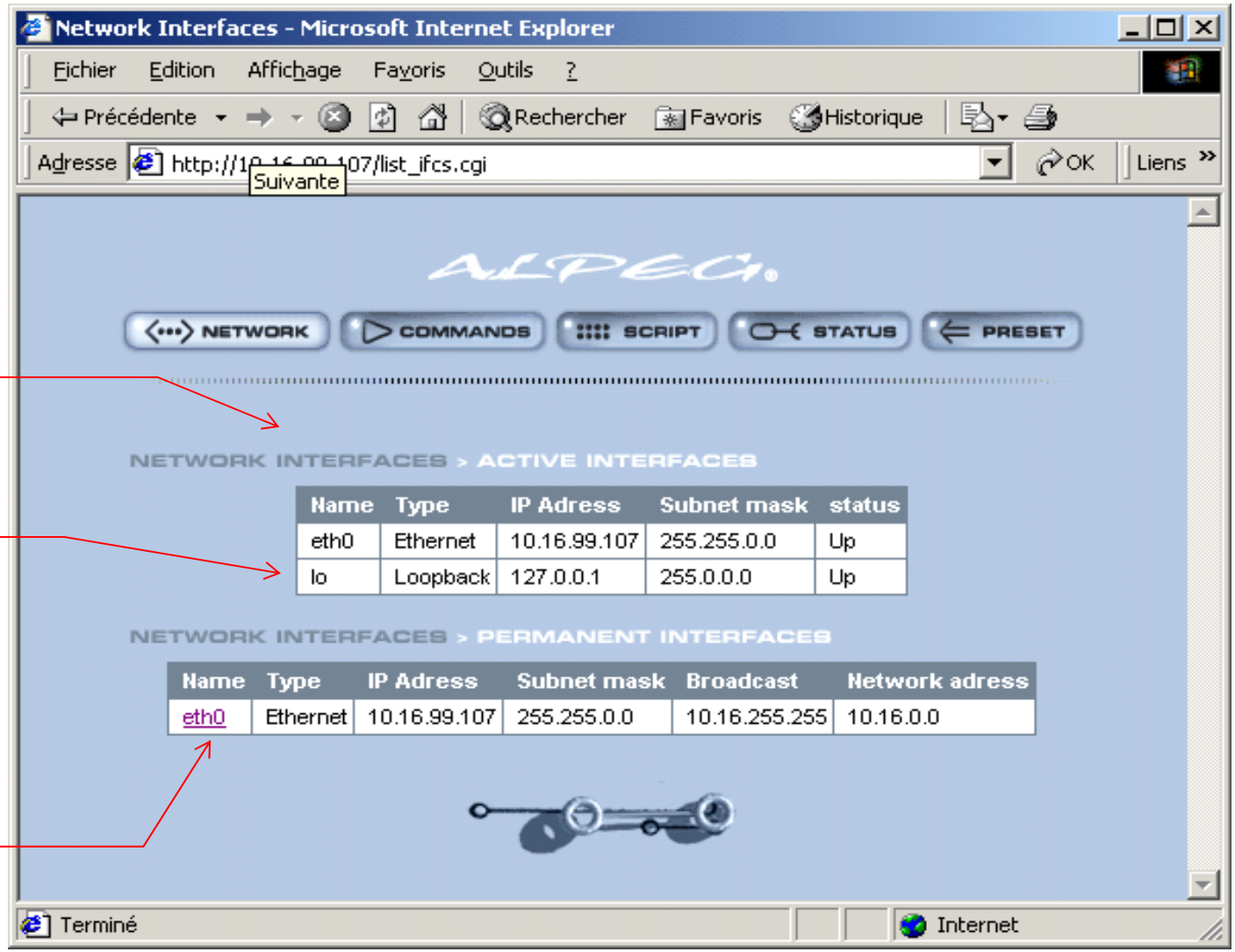


Diagram 1: computer TCP/IP parameters

Default TCP/IP configuration of player:

Default factory address is :
10.16.99.107
Default subnet (sub-network) mask is:
255.255.0.0

6.2.2 Programming example so that the player is accessible by the following type of PC address: 192.168.0.10
After having accessed the interface, you will get the following screen: network interface 1



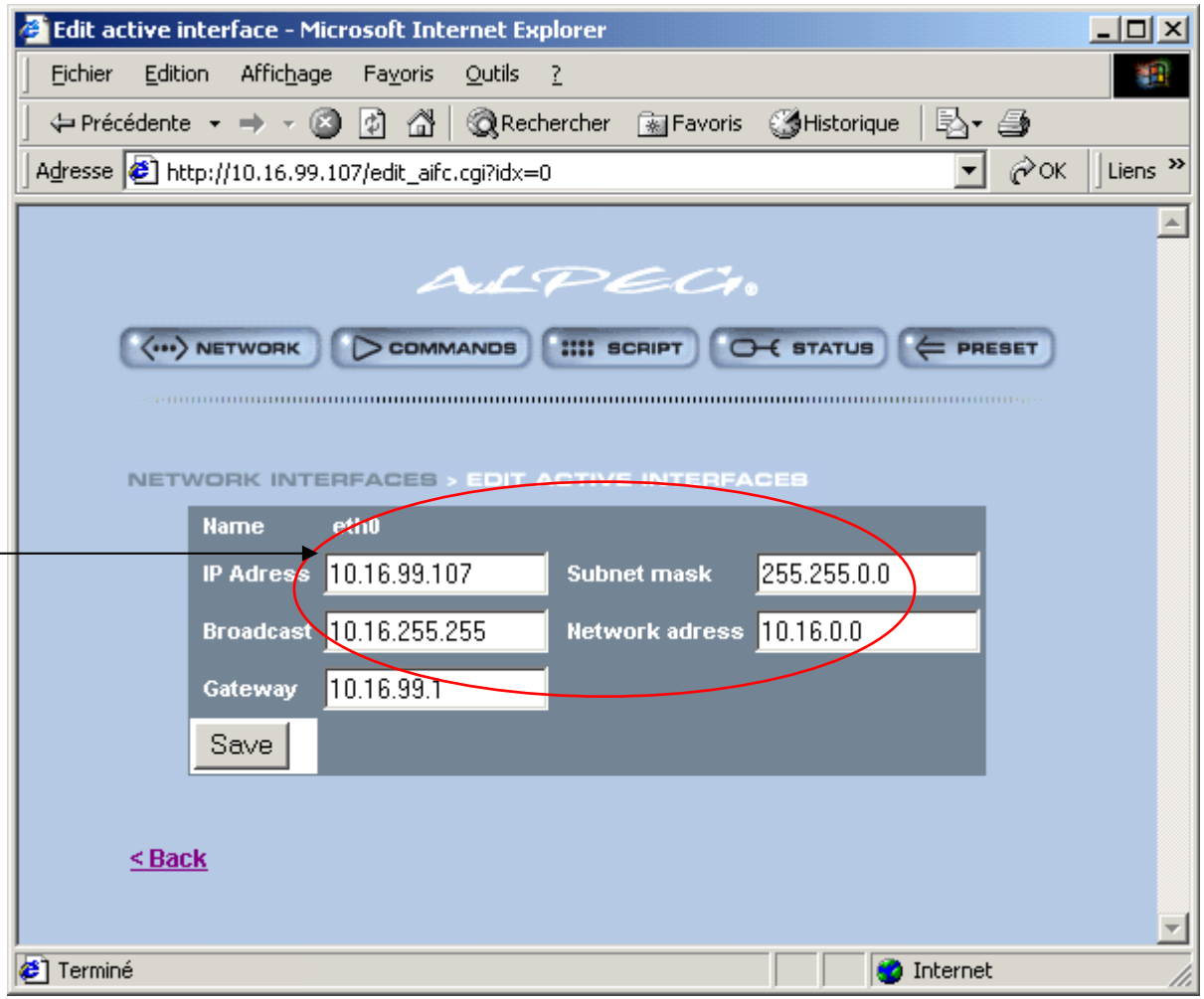
Current configuration

Programmed configuration

1) access to configuration page

Diagram 2: network interface page 1

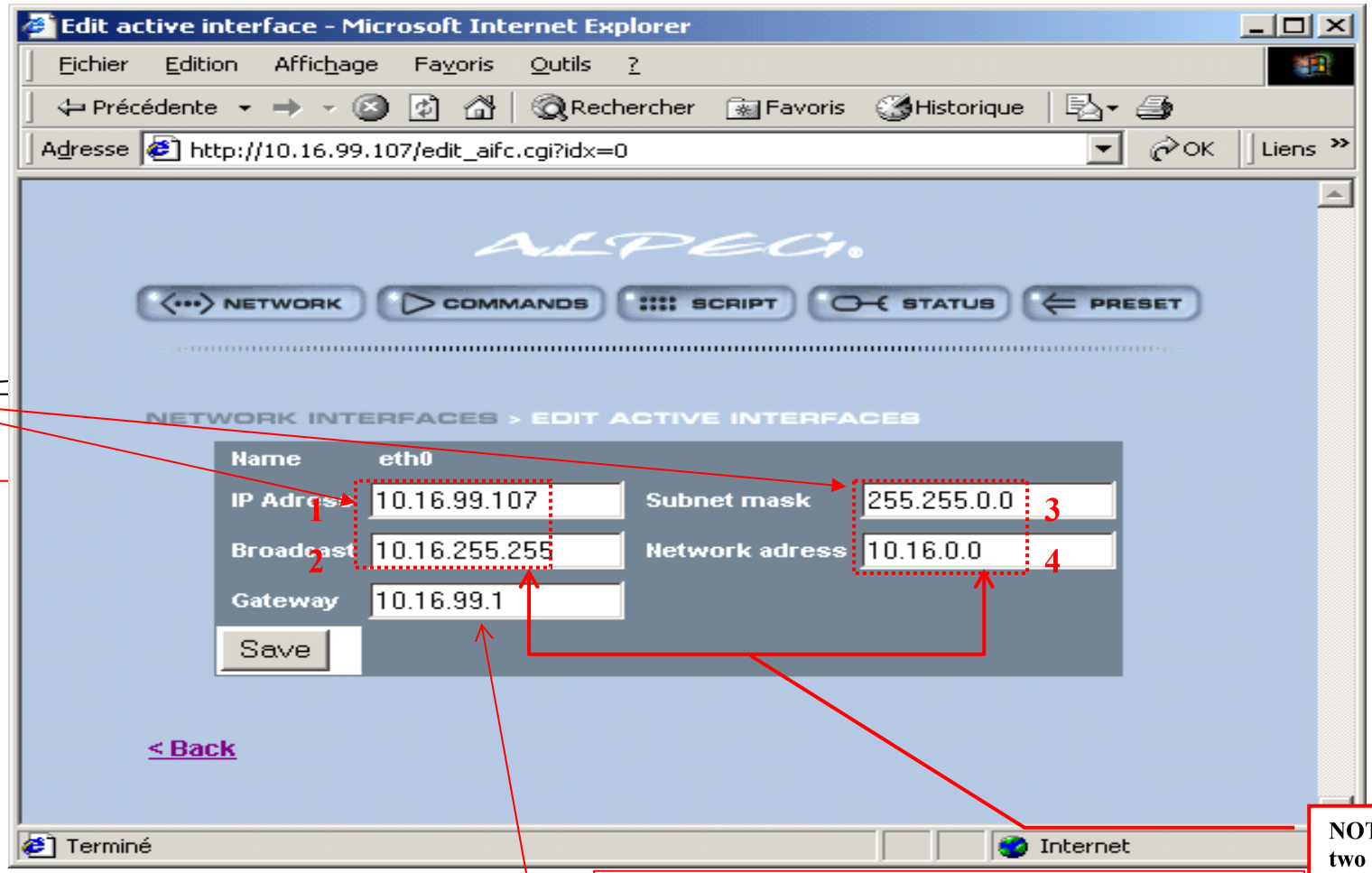
6.2.3 Network interface 2 (factory parameters below)



2) Change the configuration by modifying the 5 fields as shown in diagram 4

Diagram 3: network interface page 2

6.2.4 Network interface 2 (programming)



Fields to change to program the address: 192.168.0.10

3) After any modification, remember to SAVE, return to the previous interface to check the new address in the "permanent interfaces" then turn the player off and on again to make the new address an active one.

In the event of a connection by modem/router, for remote administration/control, you must enter in this field the number of the IP address of the router

NOTE : the first two groups of numbers in fields 2 and 4 are the same as in field 1 "IP address"

Diagram4

5) Reprogramming the TCP/IP properties of your computer to access the new address, in the current example this could be:

IP Address:	**198.168.1.5**
Subnet mask:	**255.255.255.0**

Next, after having restarted or not your computer to make the new IP address operational, open your Internet navigator and type in the address of the player as follows:

http://198.168..0.10, the main screen will appear.

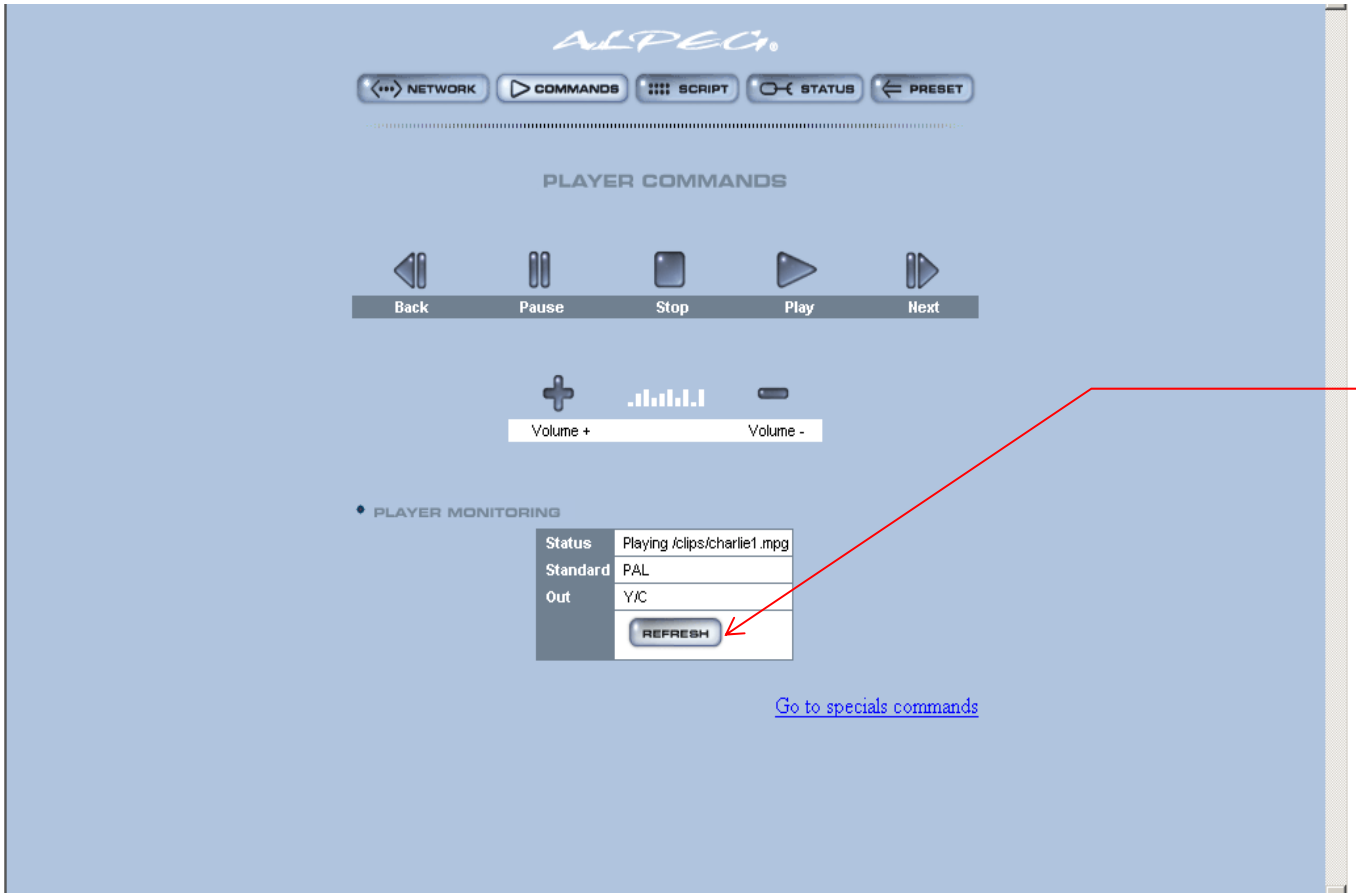
6.2.5 Reinitialising the IP address

IMPORTANT: If you have made a mistake or you are unable to find the address of the player, you have the option of programming the player with the factory parameters: TO DO THIS :

1. **Connect a standard computer (PC) keyboard to the violet socket miniDin (PS2)**
2. **Remove the black socket cover from the VGA connector that is next to the RS232 socket.**
3. **Connect a VGA computer screen to this socket.**
4. **You will see the command "UTRAM 3 login:" appear**
5. **Type: ROOT and hit ENTER**
6. **You will see the text "password: _" appear**
7. **Type: DEBIAN! and hit ENTER**
8. **Type: IFCONFIG**
9. **The IP address of the player is that which is found after the text "inet addr:"**
10. **It is imperative that you type halt and wait until the player displays Power down.**

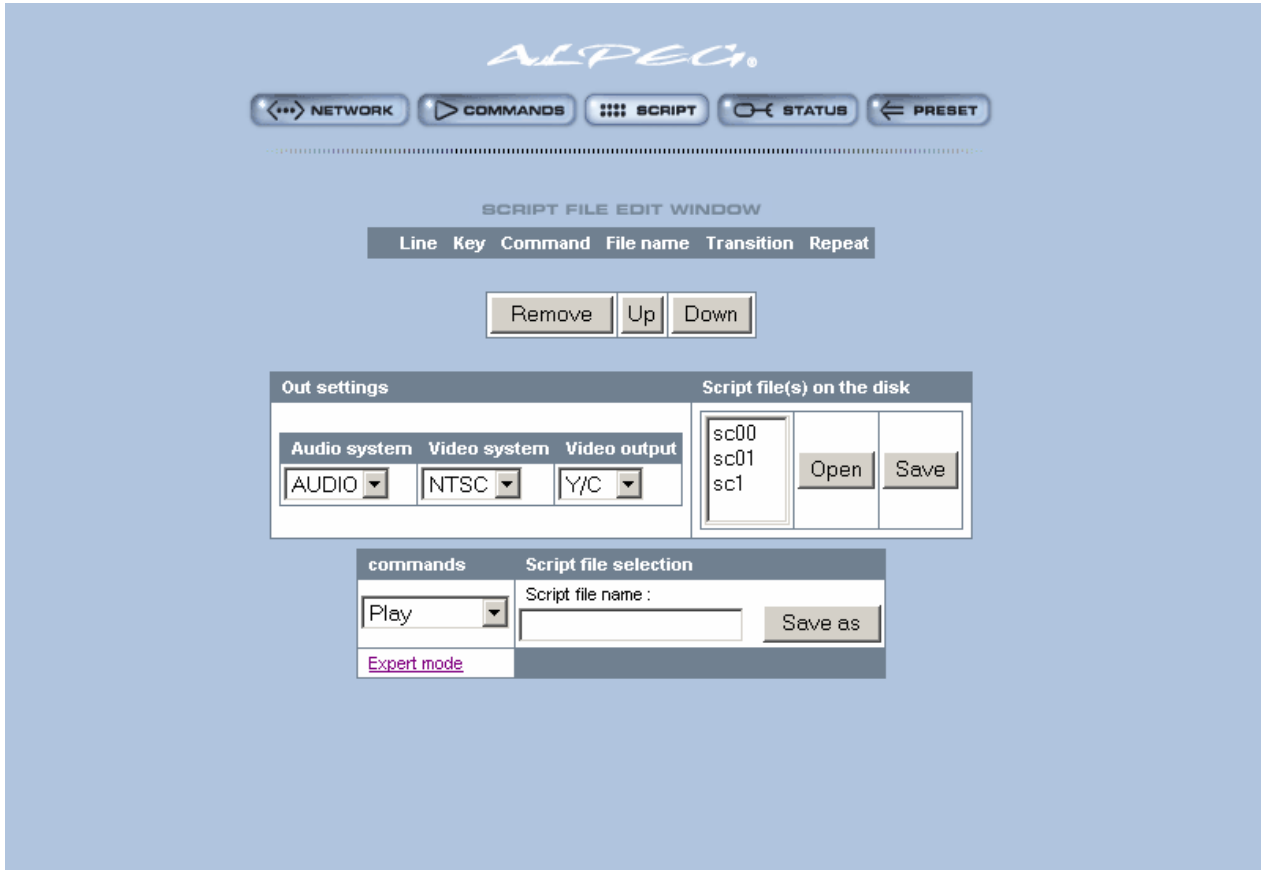
6.3 Direct TCP/IP reading control page.

It is possible to control the Alpeg player by network with the following page:



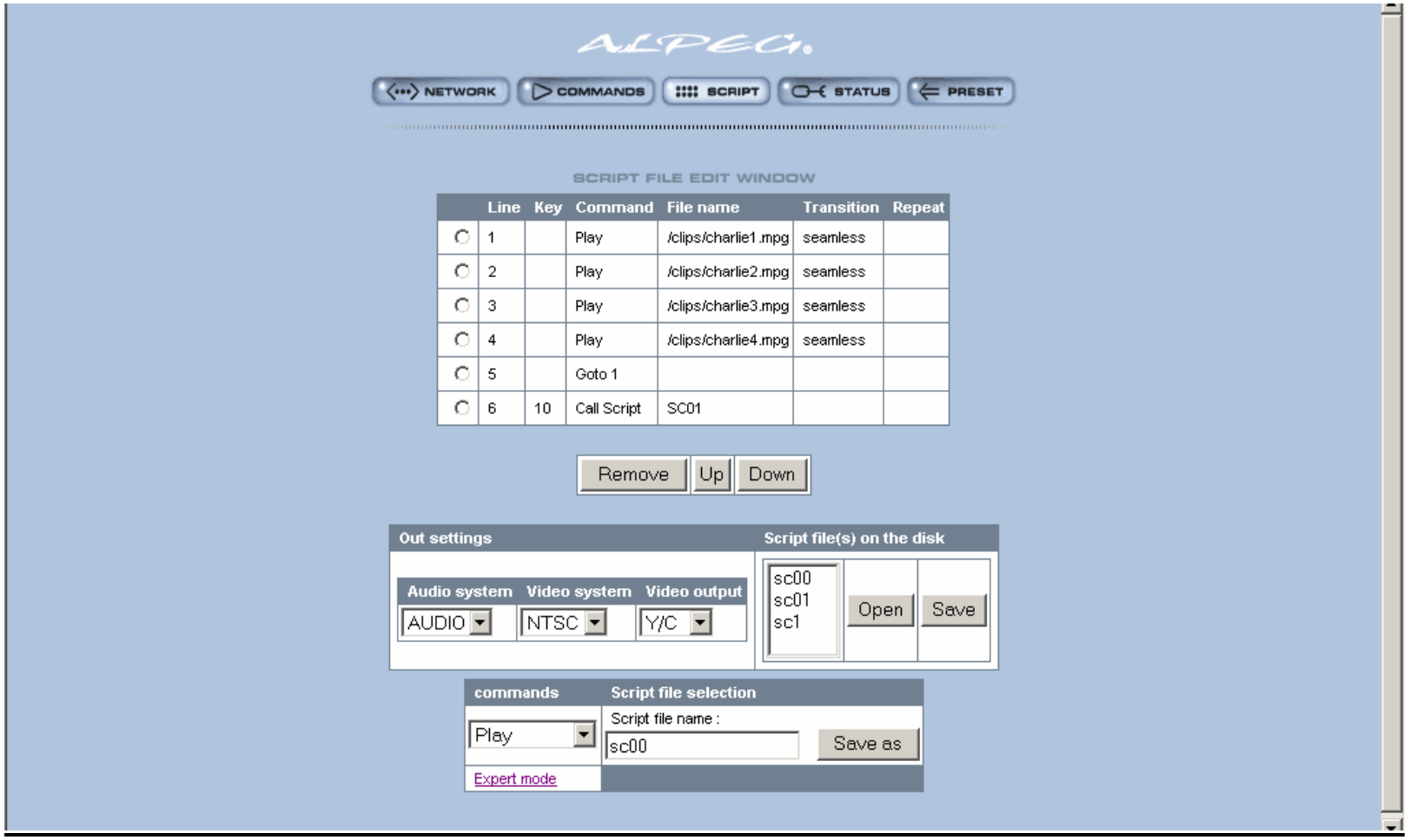
By pressing on this button, the player sends information about what it is currently doing. This also happens if you press any other command

6. 4 Main script editor page :



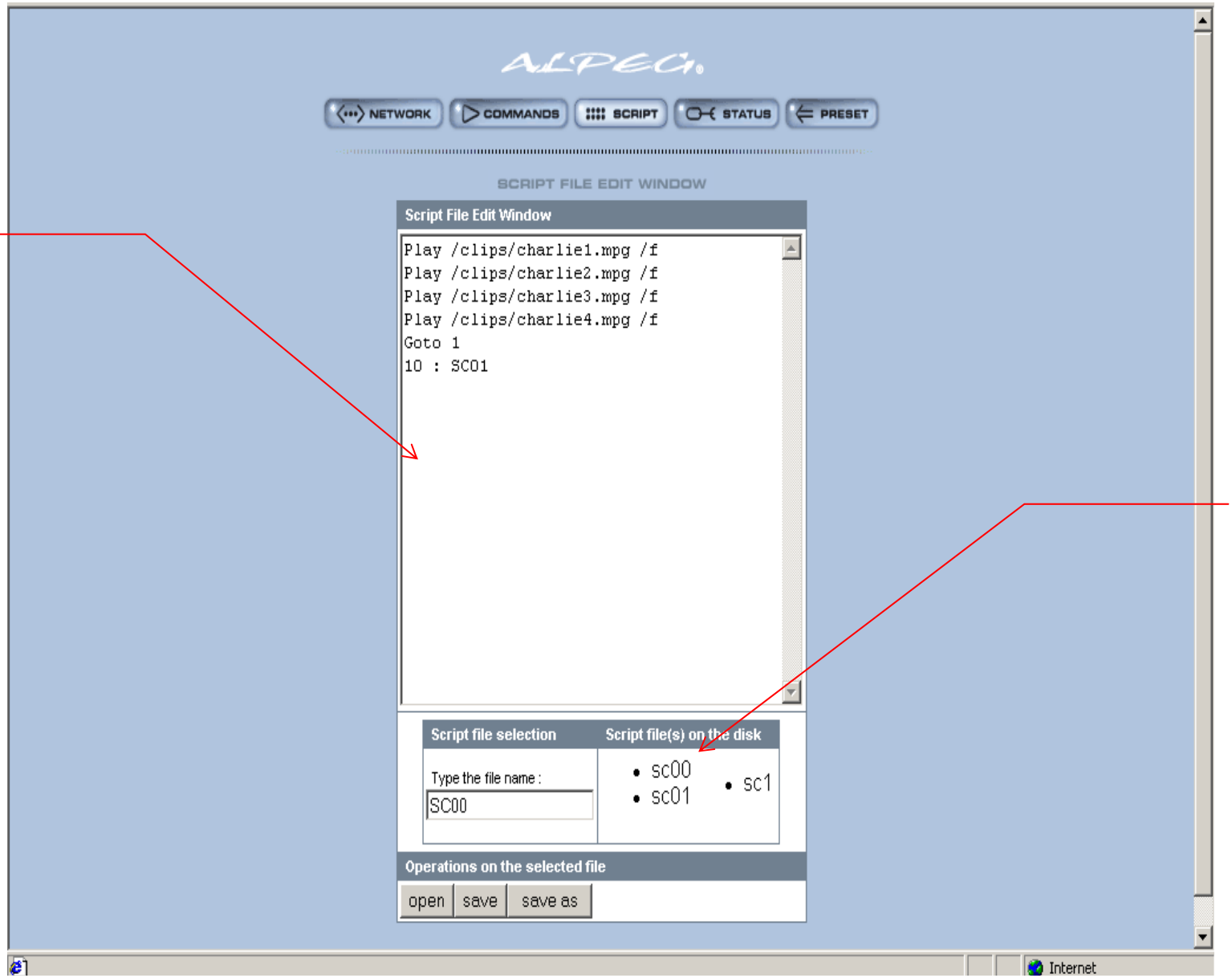
Writing the script is done entirely using the mouse intuitively, all you have to do is choose the commands,
The MPEG2 files to be read are to be chosen, and everything is to be saved in an exisitng script file or in a new script.

Editing page with the SC00 file open.



6.4.1 Script editing pages:

This is in text mode, also called "expert mode".



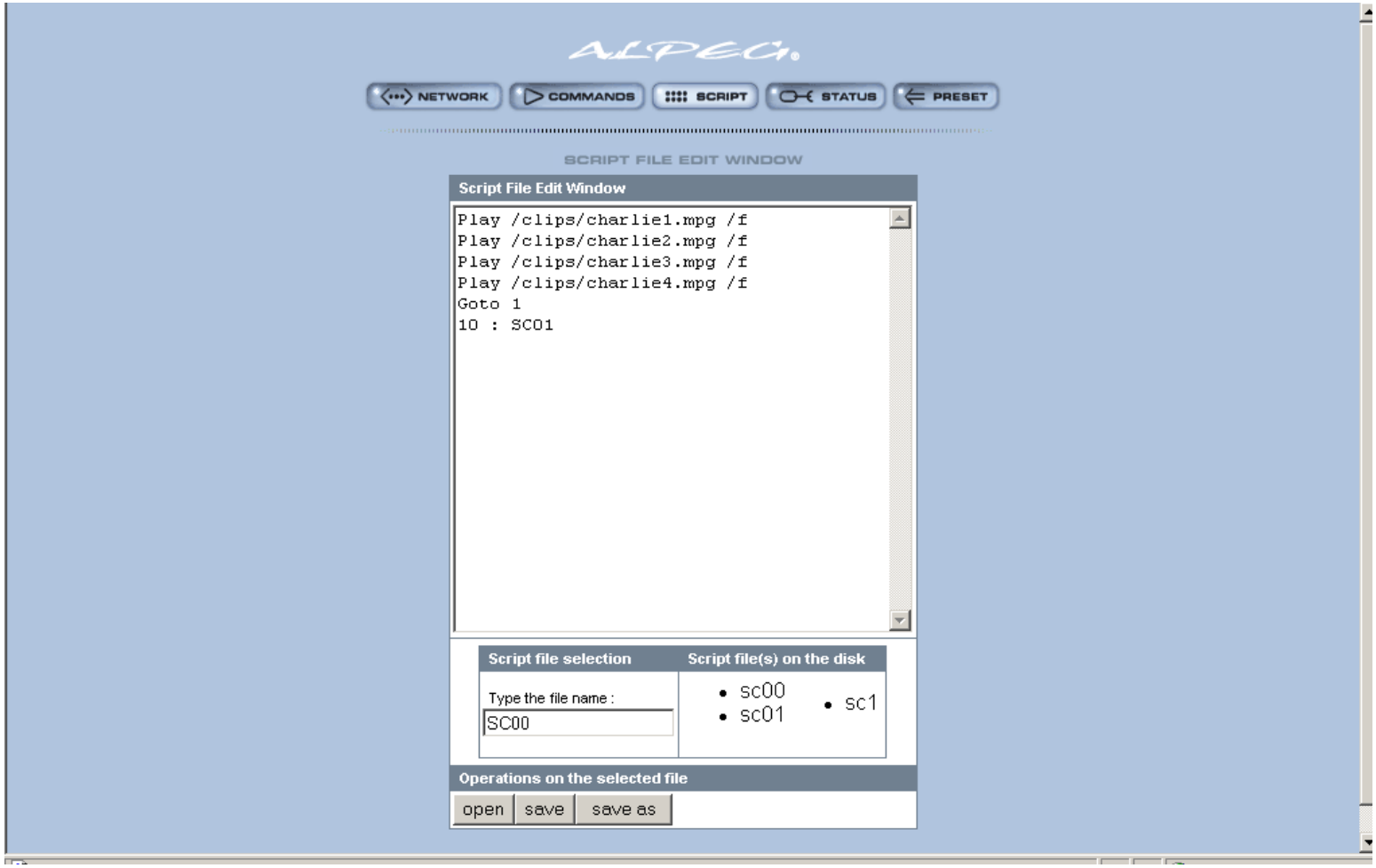
Editing area

In this area, all the scripts appearing in the player are listed.

Diagram 5: script editor

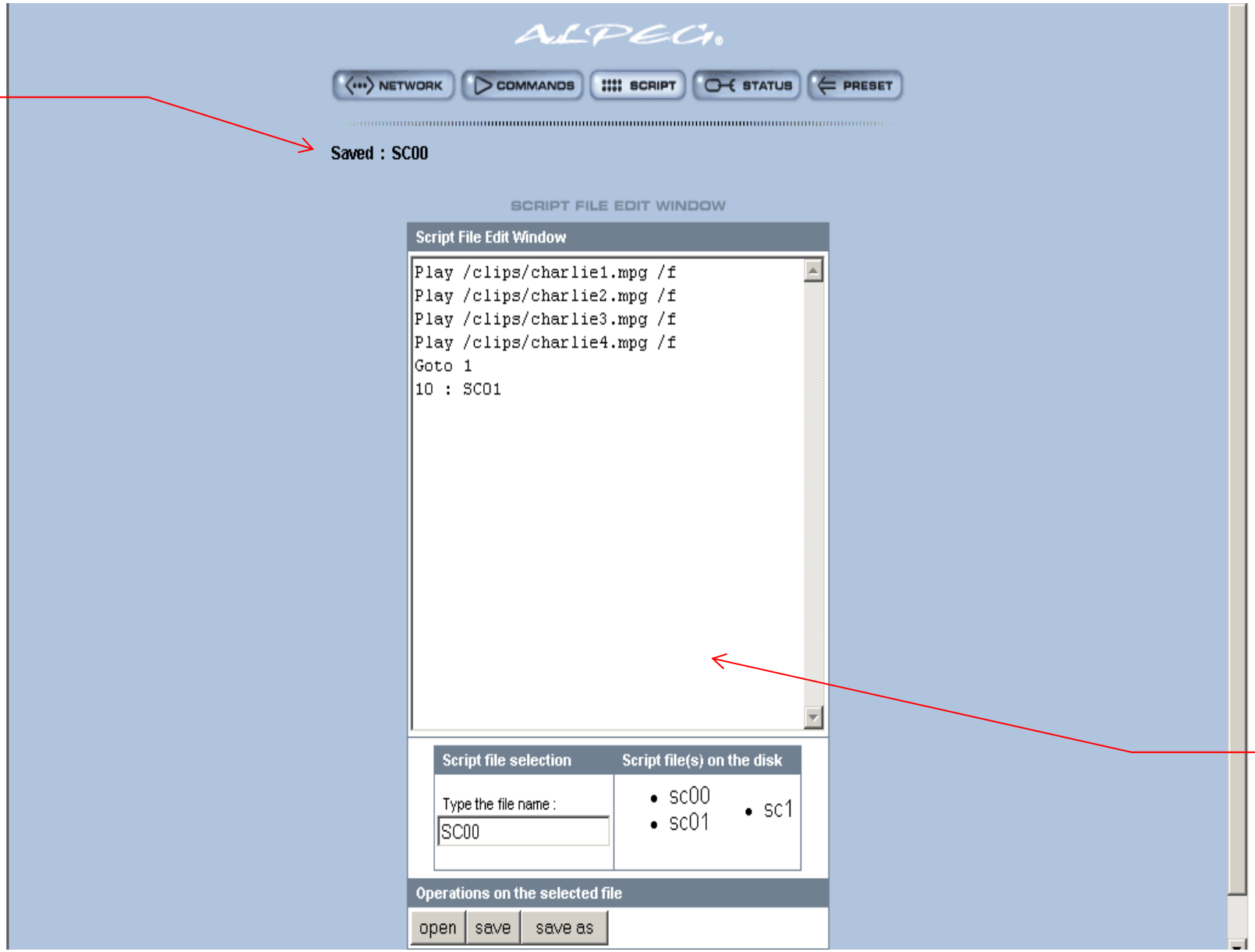
6.4.2 Opening a script in expert mode.

There is always, for all players, a default script text file called “SC00”



6.4.3 Saving a script file

The file that has been saved is shown here.



To write a script, please use the language chapter instructions.

6.5.Player status page (RS232 address)

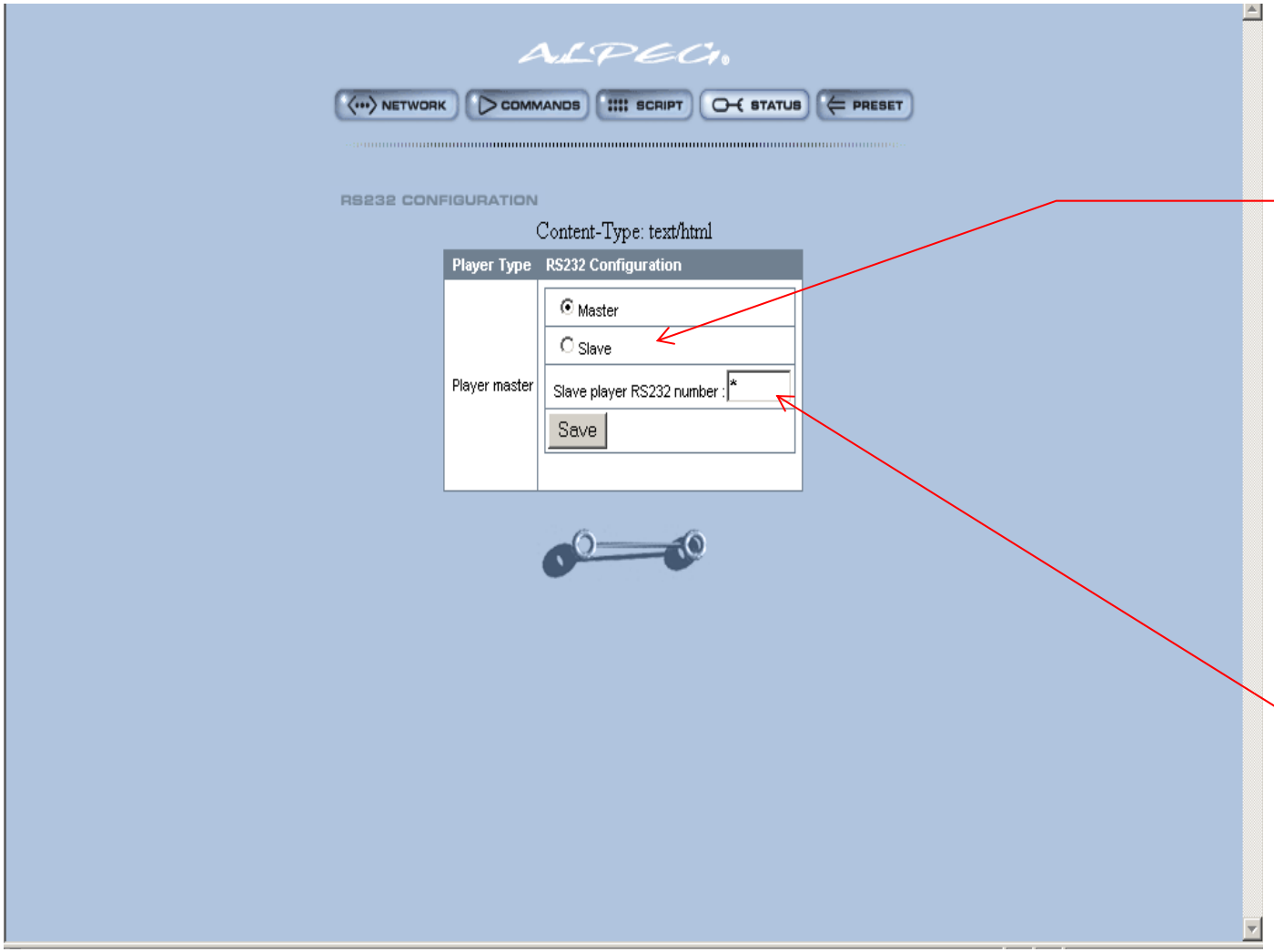
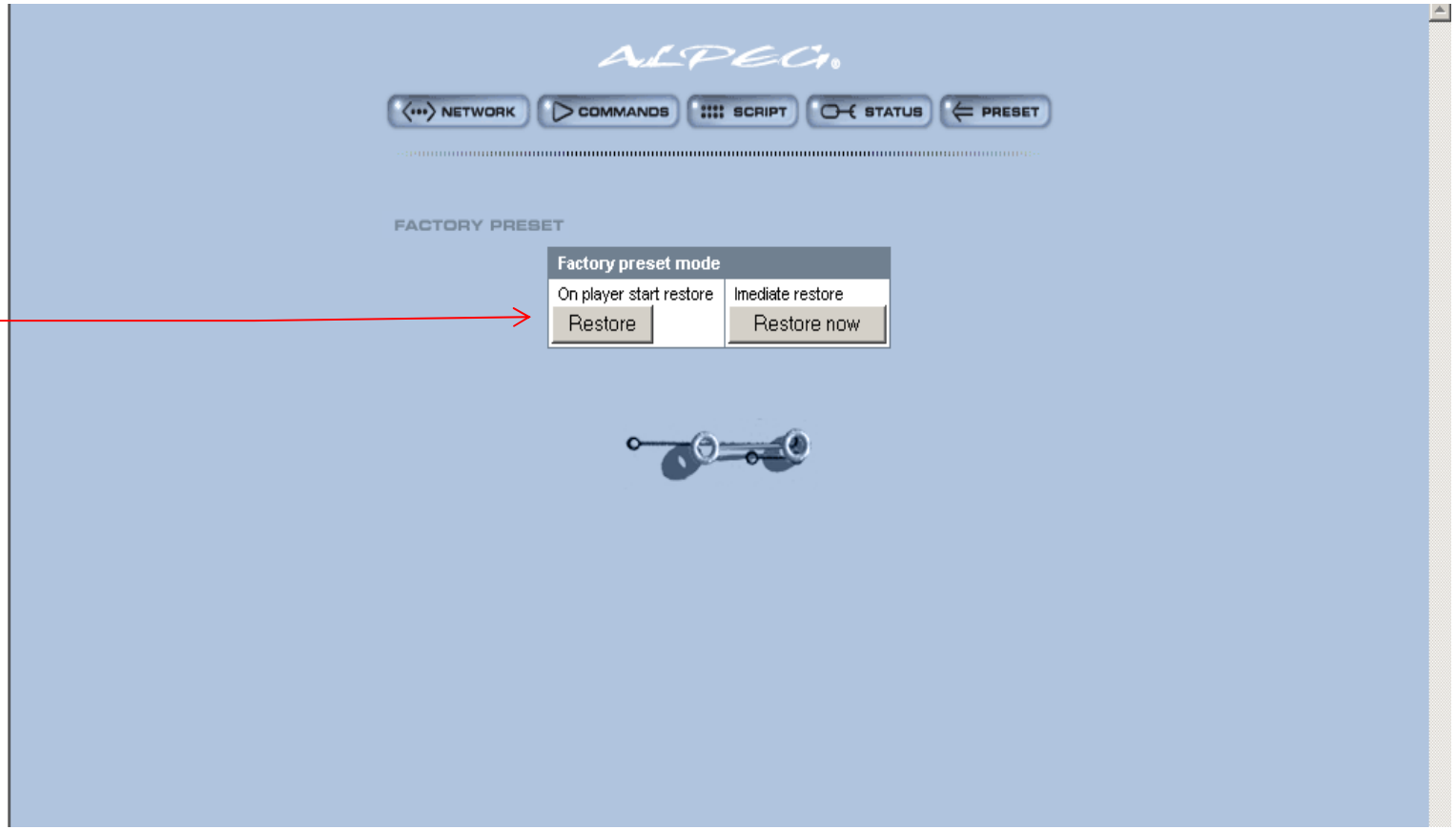


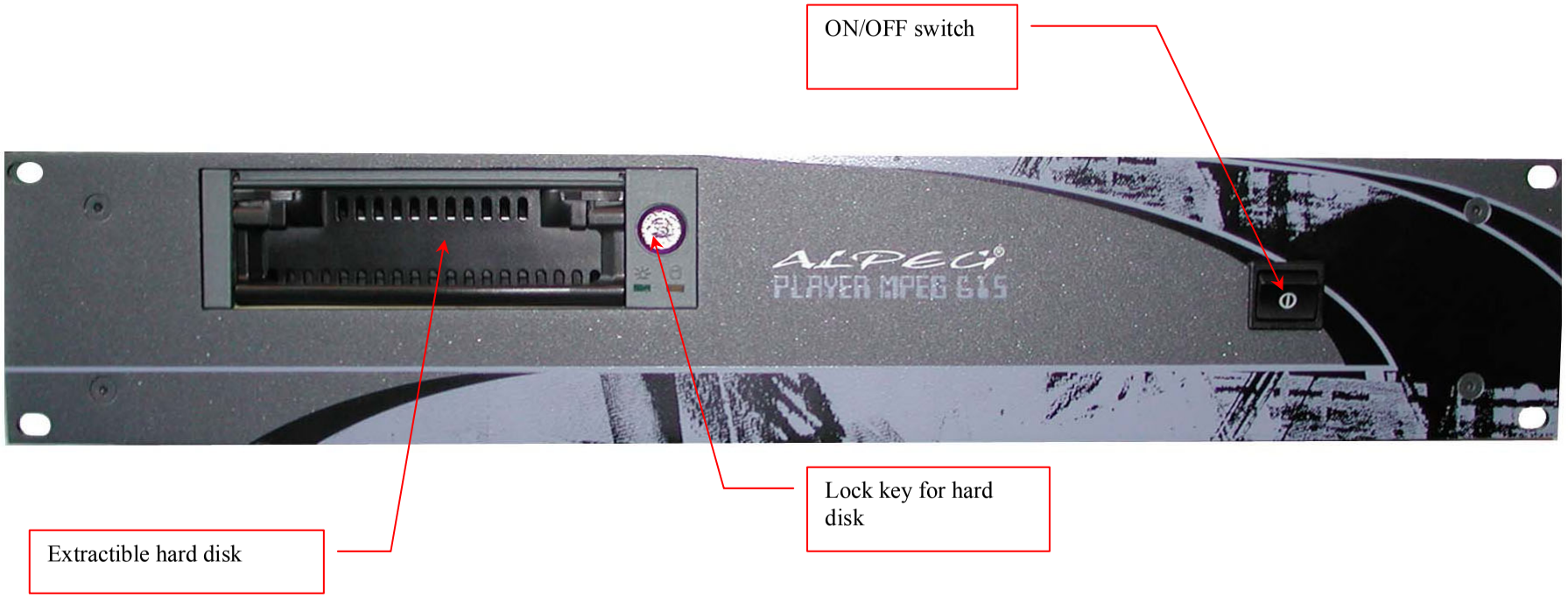
Diagram 6: Status

6.6 Factory preset page :

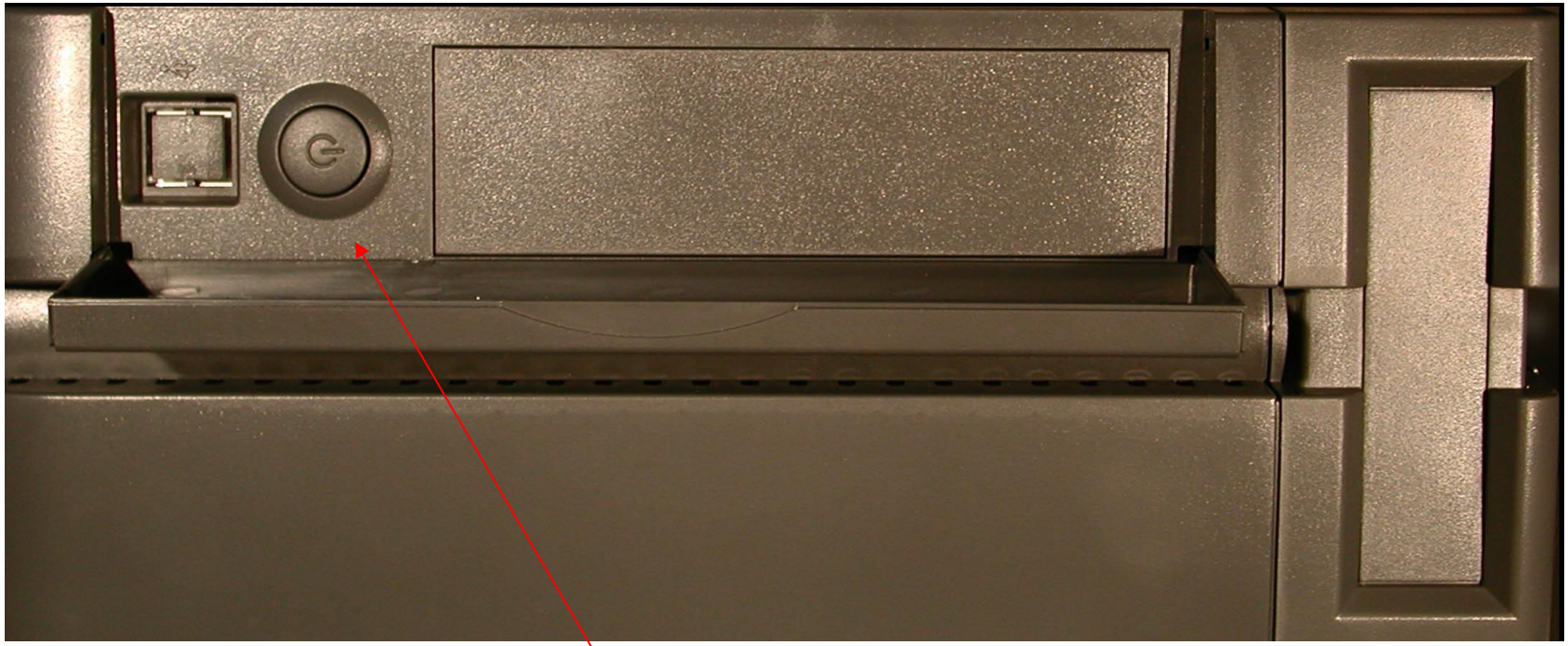
Restore the original TCP/IP configuration; the sound volume will be restored the next time the player is switched on



6.7: MP615 Front panel:

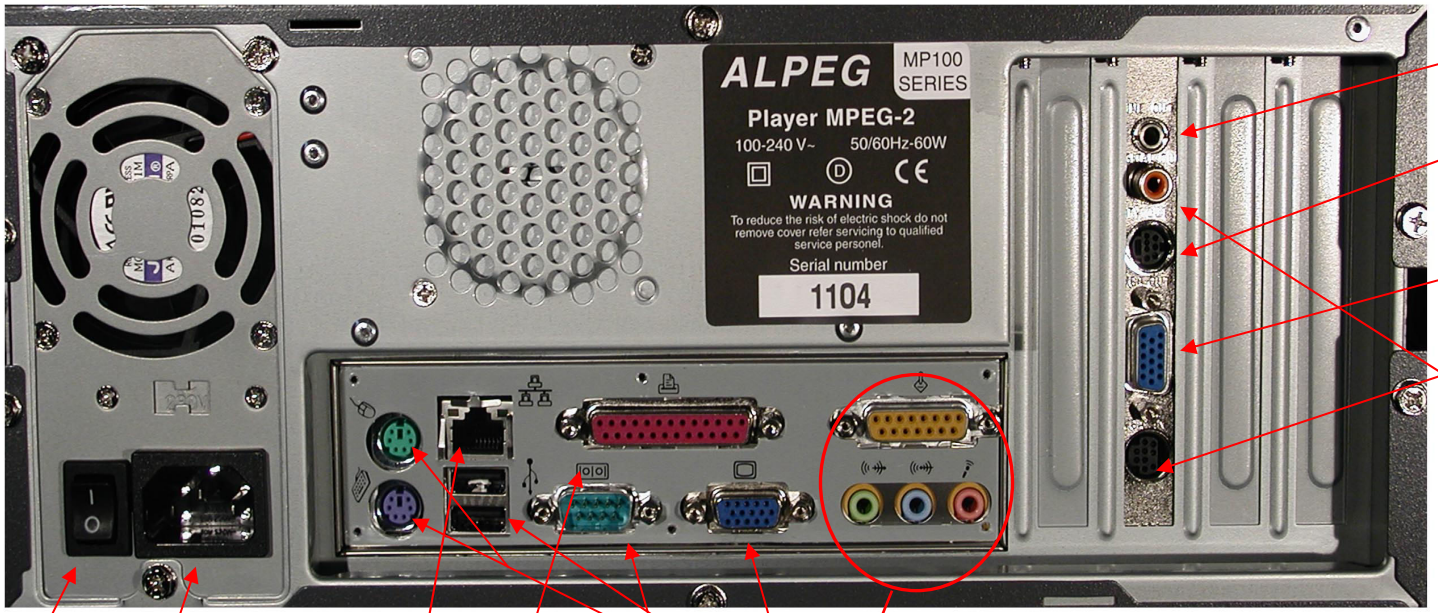


6.8 MP107 Front panel:



On/off button behind the hatch.

6.9 MP107 Rear Panel:



Audio Stereo Output

Direct video output Y/C, CVBS or YUV by adapter.

VGA output

Not used

General on/off switch

Power plug

Network connection

Dry contact socket

RS232 input

Not used

6.10 MP615 Rear panel:

YUV= Blue :2, Red :3, Green :4
RGsB=Blue :2, Red :3, Green :4

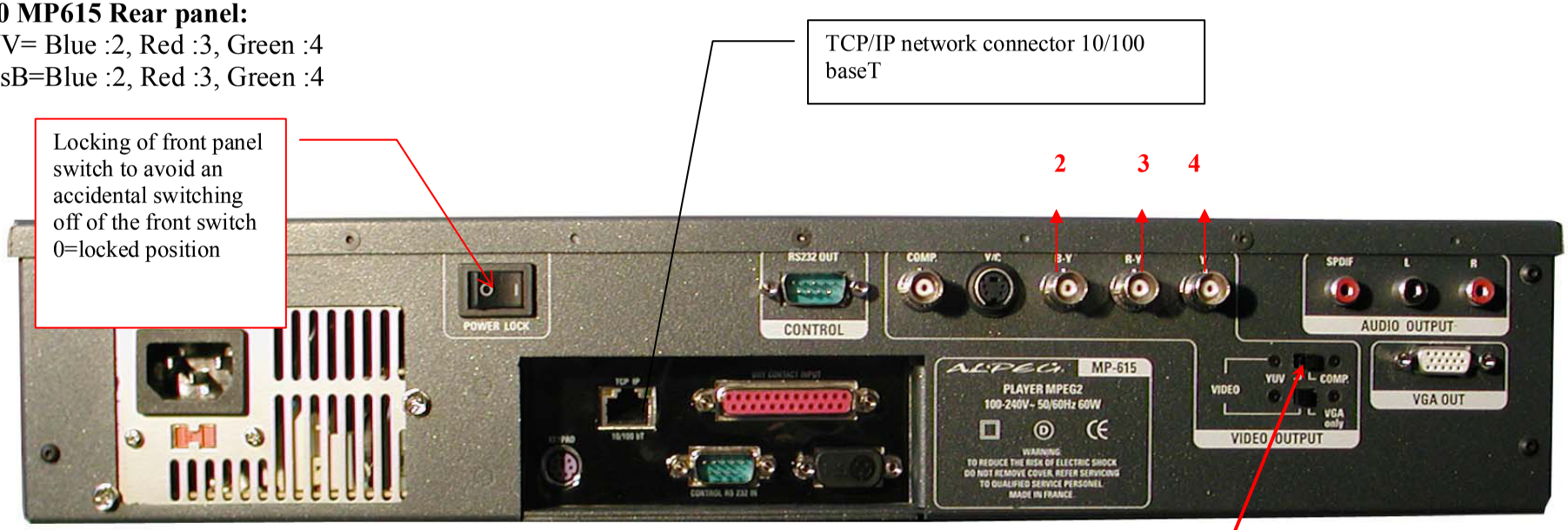
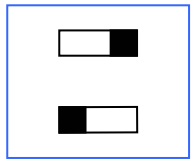
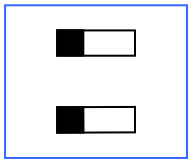


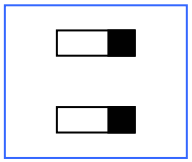
Table showing position of switches according to video outputs.



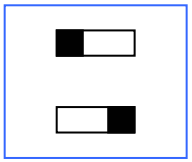
Composite & Y/C, BNC & miniDin Connectors



YUV, 3 x BNCs Connectors



RGsB connectors, identical to YUV



VGA connectors, DB15

RS232 Commands and protocol*:*

Protocol: 9600,n,8,1.

Each instruction must be ended with a carriage return. (Odh**). You will receive an Echo back.**

After each command sent by RS232, in return, the player sends the following channel status :

**** equals "space"***

STAT*n*/clips/*filename***.mpg*n*n**↵

Function where :
0=Playing
1=Paused
2=Stopped

Colour Sys.
where :
0=NTSC
1=PAL
2=PAL 60 Hz
3= PAL M

Video outputs used :
0=Composite & S-Video
1= YUV
2=RGsB
3=SVGA

All the RS 232 commands must be preceded by the following string of characters:

RS 232 port number of the player to which this command is dedicated

ID0CDE:

Commands :

KEYnn	**to read an introduction line,**
PAU	**to pause the player,**
SEQnn	**to read a specific script,**

Examples :

IDnCDE:KEY*yy* Player IDn, is calling line n° *yy*

ID0CDE:KEY01 Call line numbered 1 by the **Key** command on player n°0 (master); this line can control a change in the PAL or NTSC colour format, a change of the video output[1], a « goto » « wait x » command, or simply control the reading of a video file.

ID0CDE:MPG/clips/*filename***.mpg** (on player IDn, reads the video sequence specified*)*

ID0CDE:MPG/clips/*drop***.mpg** on master player, reads the drop.mpg sequence

This is a ZERO, which corresponds to the RS232 port address of the player concerned, the appearance of a ZERO means master player if the RS232 is connected. Check that the name of the file is ACTUALLY present in the specified player.

ID0CDE:SEQ*xx* On master player, reads the SC*xx* script

ID0CDE:SEQ00 On master player, read the SC00 script

A "SCnn" script corresponding to a specific script must be present in the player concerned.

[1] See after

Spécifications[2]:

Description	Specifications
Model number	MP 615
Video Compression	MP@ML, ISO 13818-2
Accepted MPEG Formats	MPEG-1 system streams MPEG-2 program stream at Half D1, 2/3D1, FullD1, CCIR 601. NTSC & PAL colour systems. Compatible with all types of encoding systems (hardware & software).
Output	from 1 to 15 Mbits/s constant or variable
Hard disk	20 Go IDE supplied (90 minutes of video at 14 Mbits/s) in a container. Can accept disks up to 70Go.
Video outputs	Composite, 1x BNC Y/C, 4 pins mini DIN YUV, 3 x BNCs RGsB, 3 x BNCs SVGA (800x600) 37,5 kHz – 70 Hz, DB15
Audio outputs	Asymmetric stereo 2 x RCA
Video sequence access time	± 15 ms, depending on configuration transition of programming sequences: Black or seamless
Number of sequences	2000 maximum
programming	Very rich script language allowing for extreme flexibility
External control	DB25, dry contact for first 5 commands or keyboard sequence*. RS232: instant access to commands and sequences. Ethernet TCP/IP network interface (10/100base T). Remote network control. ** 32 sequences with a multiplexer dice as an option*
Direct control	16 touch keyboard for direct access to commands and sequences. RS232, DB9 IN & DB9 OUT for linkage (1 master, n slaves) Integrated http server: control & programming ftp server: downloading of files..
Programming by TCP/IP	Downloading of files possible during reading of files. Direct control: Play, Stop, Pause, Next, Back, sound volume driving.
Consumption	100 watts
Weight	8,5 KG - 18 lbs
Dimensions (D x W x H)	13.85 x 3.46 x 19 inches – 352 x 88 x 480 mm.

[2] the specifications of the product may be changed without prior notification. Check with your Alpeg® reseller for the most recent and up to date configuration and specifications.